4 Alignments and Adjustments

This section of the service manual explains how to use the RS232 JIG.
This function is needed for AD board change and program memory (IC110) change.

4-1 Required Equipment

The following equipment is necessary for adjusting the monitor:

- Computer with Windows 95, Windows 98, or Windows NT.
- MTI-2031 DDC MANAGER JIG

4-2 Automatic Color Adjustment

To input video, use 16 gray or any pattern using black and white.

1. Select english for OSD language.
2. Press the "Exit" key for 5 seconds.

4-3 DDC EDID Data Input

1. Input DDC EDID data when replacing AD PCB.
2. Receive/Download the proper DDC file for the model from HQ quality control department. Install the below jig (Figure 1) and enter the data.

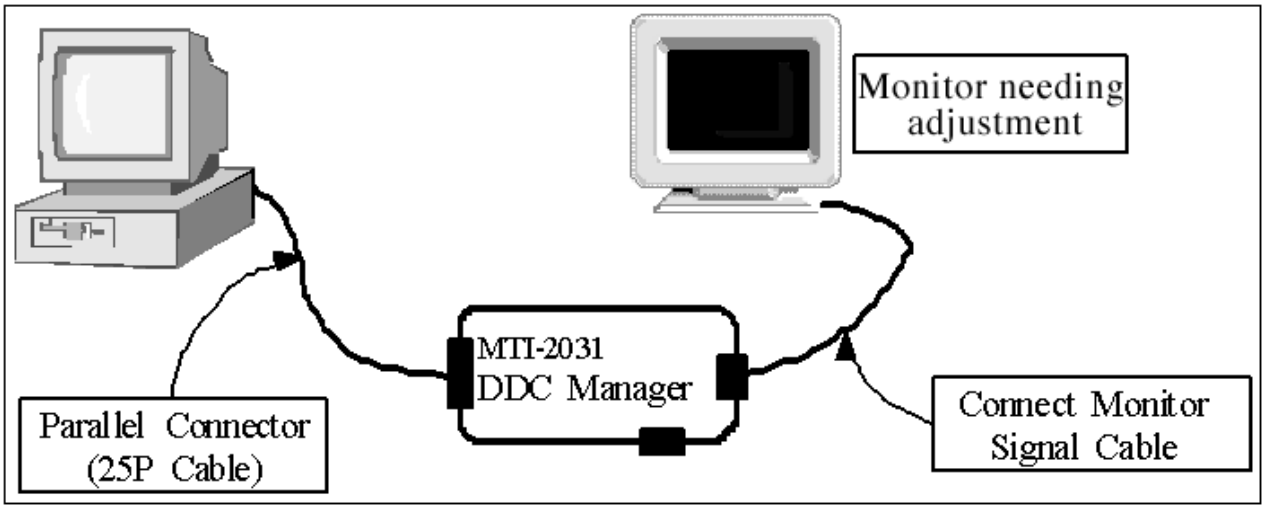

Figure 1.

4-4 OSD Adjustment When Replacing Panel

1. Adjust brightness and contrast to 0. Then, press the exit key for 5 second. Service function OSD will appear on screen.
2. Press the + key to place the cursor on the panel. Press the menu key for 5 seconds.

4-5 OSD Adjustment When Replacing Lamp Only

1. Adjust brightness and contrast to 0. Then, press the exit key for 5 seconds. Service function OSD will appear on the screen.
2. Press the + key. Select upper lamp and press the menu key for 5 seconds. Then, select lower lamp and press the menu key for 5 seconds.

** **Note :** Please be sure to read the following instructions for details on service function.*

4-6 Service Function Spec.

4-6-1 How to Display Service Function OSD

1. The value for brightness and contrast should be changed to zero.
2. Within 5 seconds, press the exit key.
3. Service function OSD will be displayed.

* If you want to disable the service function OSD, you will have to power off.

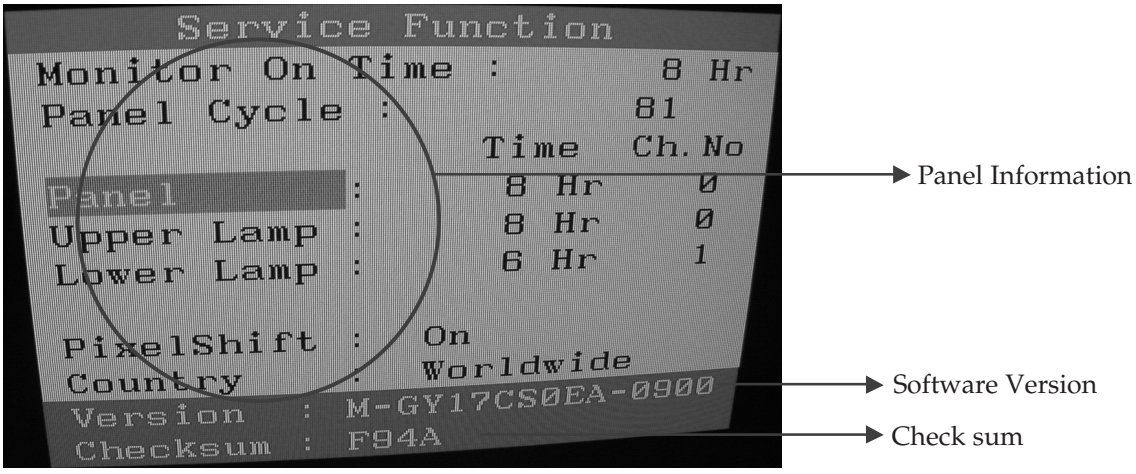

Figure 2. The example of service function OSD

The service function OSD is based on a grid of 29 columns x 12 rows.
The service function OSD consists of panel information, software version and MICOM check sum.

4-6-2 How to Control Service Function OSD

1. With the panel selected on OSD, whenever you press the right key, the base color will change to blue from “Panel” to “Country”, “Pixel Shift”, “Lower Lamp”, “Upper Lamp”.

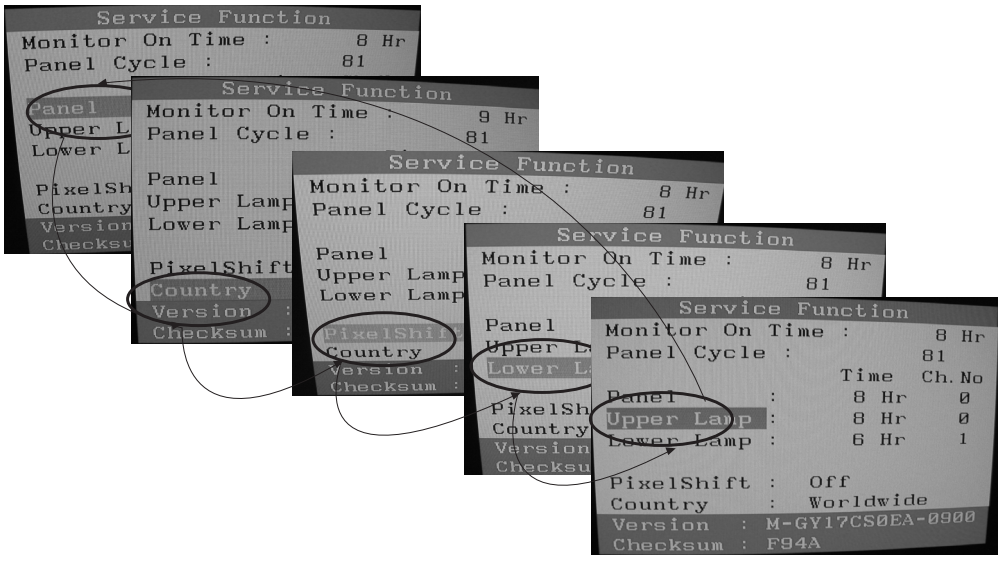
Service Function
Monitor On Time : 8 Hr
Panel Cycle : 81
Time Ch. No
Panel : 8 Hr 0
Upper Lamp : 8 Hr 0
Lower Lamp : 6 Hr 1
PixelShift : Off
Country : Worldwide
Version : M-GY17CS0EA-0900
Checksum : F94A

Figure 3.

4-6-3 How to Control Service Function OSD

• After change the panel or lamp, you must reset service function OSD.

• The case of panel change

After changeing the panel, press the menu key within 5 seconds,.
Then, panel Ch. No increases one step and the panel time information is reset to zero.
Simultaneously, other information is reset to zero (Upper/Lower lamp, Panel cycle).

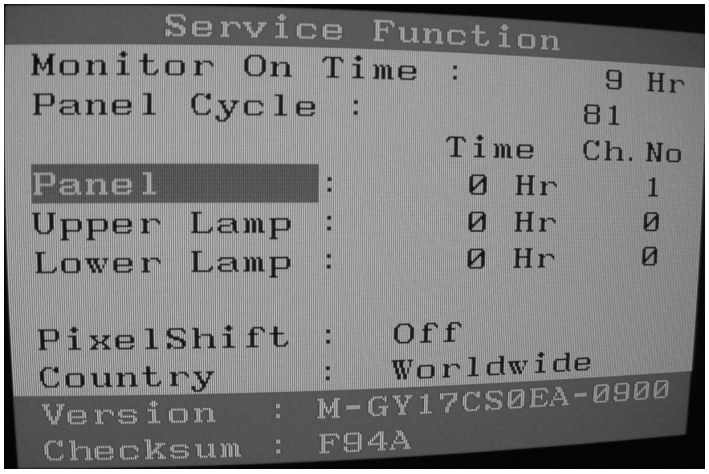
Service Function
Monitor On Time : 9 Hr
Panel Cycle : 81
Time Ch. No
Panel : 0 Hr 1
Upper Lamp : 0 Hr 0
Lower Lamp : 0 Hr 0
PixelShift : Off
Country : Worldwide
Version : M-GY17CS0EA-0900
Checksum : F94A

Figure 4.

4-6-4 How to Control Service Function OSD

• In the case of Upper Lamp or Lower Lamp change

After changeing the Upper Lamp or Lower Lamp,

1. Select the Upper Lamp or Lower Lamp
2. Press the Menu key within an 5 seconds.

Then, Ch. No and time will be reset to zero (selected item only).

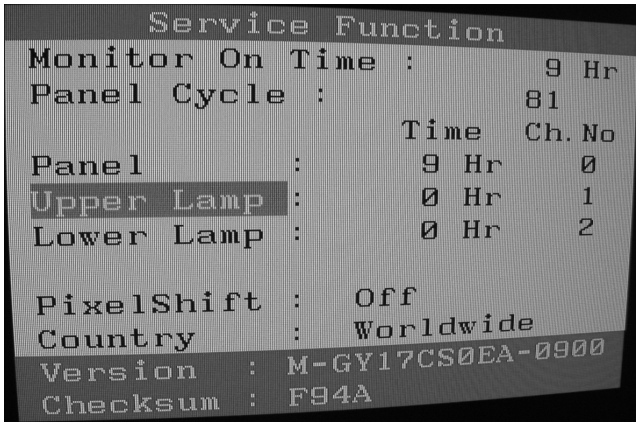
Service Function
Monitor On Time : 9 Hr
Panel Cycle : 81
Time Ch. No
Panel : 9 Hr 0
Upper Lamp : 0 Hr 1
Lower Lamp : 0 Hr 2
PixelShift : Off
Country : Worldwide
Version : M-GY17CS0EA-0900
Checksum : F94A

Figure 5.

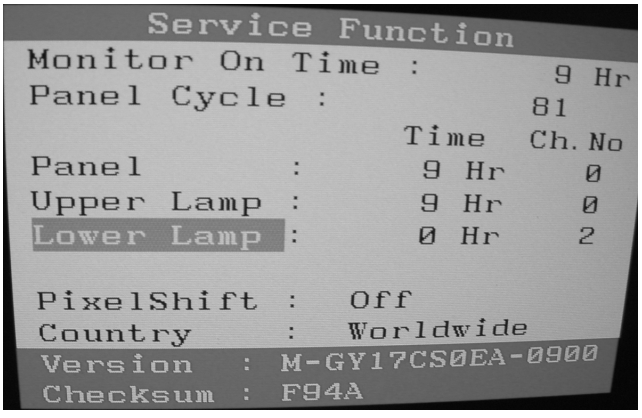
Service Function
Monitor On Time : 9 Hr
Panel Cycle : 81
Time Ch. No
Panel : 9 Hr 0
Upper Lamp : 9 Hr 0
Lower Lamp : 0 Hr 2
PixelShift : Off
Country : Worldwide
Version : M-GY17CS0EA-0900
Checksum : F94A

Figure 6.

4-6-5 Pixel shift and language selection change

* Note : Use the '-' key to vary values for new pixel shift and country menu.

1. Pixel shift : on ➔ off

- When a same picture is displayed with no change for an extended period of time, this function prevents the display panel from image sticking.

* On for '0 x 01' with EEPROM 0x2E, Off for others; Always restart the monitor after EEPROM adjustment.

- Motion path : see Figure 7. One-step movement requires 4 minutes (total of 32 steps : 128 minutes)

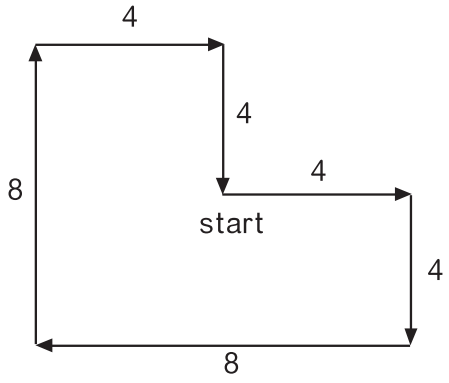

Figure 7.

- Location is reset.
  a) the monitor is restarted
  b) image mode is adjusted
  c) user adjusts a key

* Note : Pixel shift is not a vailable in service menu.

2. Country : Worldwide ➔ Korean ➔ Chinese ➔ Japanese

- This function enables to select relevant OSD language for each region / country.
  - Worldwide : 7 languages (English, German, Spanish, French, Italian, Swedish, Russian)
  - Korean : 2 languages (Korean, English)
  - Chinese : 2 languages (Simplified Chinese, English)
  - Japanese : 2 languages (Japanese, English)

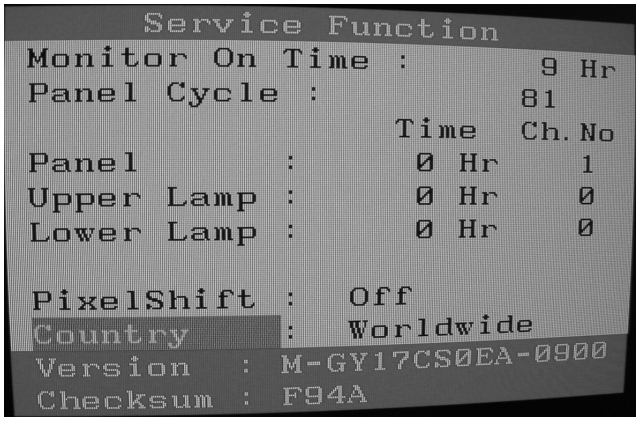
Service Function
Monitor On Time : 9 Hr
Panel Cycle : 81
Time Ch. No
Panel : 0 Hr 1
Upper Lamp : 0 Hr 0
Lower Lamp : 0 Hr 0
PixelShift : Off
Country : Worldwide
Version : M-GY17CS0EA-0900
Checksum : F94A

Figure 8.

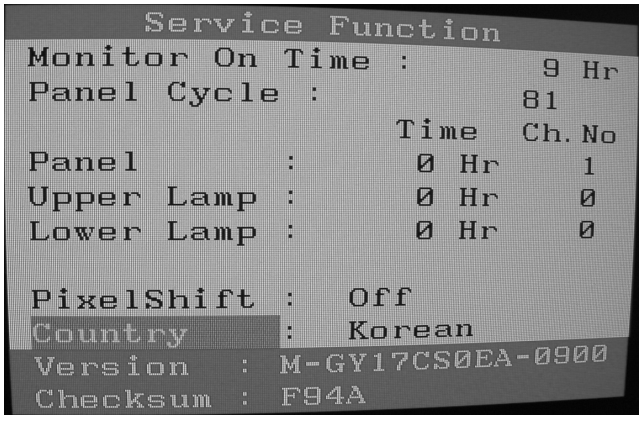
Service Function
Monitor On Time : 9 Hr
Panel Cycle : 81
Time Ch. No
Panel : 0 Hr 1
Upper Lamp : 0 Hr 0
Lower Lamp : 0 Hr 0
PixelShift : Off
Country : Korean
Version : M-GY17CS0EA-0900
Checksum : F94A

Figure 8-1.

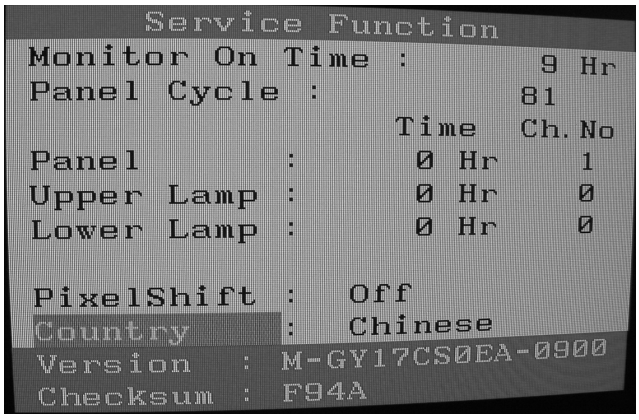
Service Function
Monitor On Time : 9 Hr
Panel Cycle : 81
Time Ch. No
Panel : 0 Hr 1
Upper Lamp : 0 Hr 0
Lower Lamp : 0 Hr 0
PixelShift : Off
Country : Chinese
Version : M-GY17CS0EA-0900
Checksum : F94A

Figure 8-2.

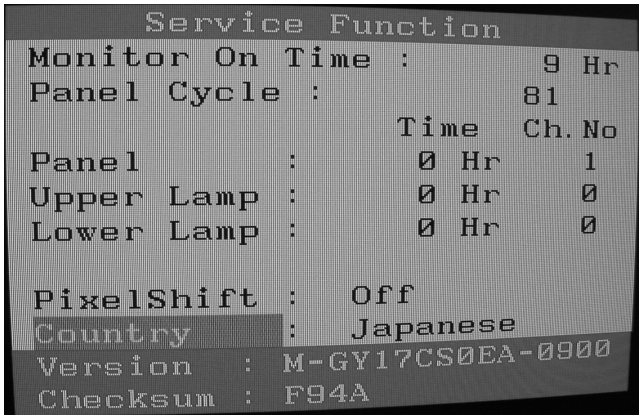
Service Function
Monitor On Time : 9 Hr
Panel Cycle : 81
Time Ch. No
Panel : 0 Hr 1
Upper Lamp : 0 Hr 0
Lower Lamp : 0 Hr 0
PixelShift : Off
Country : Japanese
Version : M-GY17CS0EA-0900
Checksum : F94A

Figure 8-3.

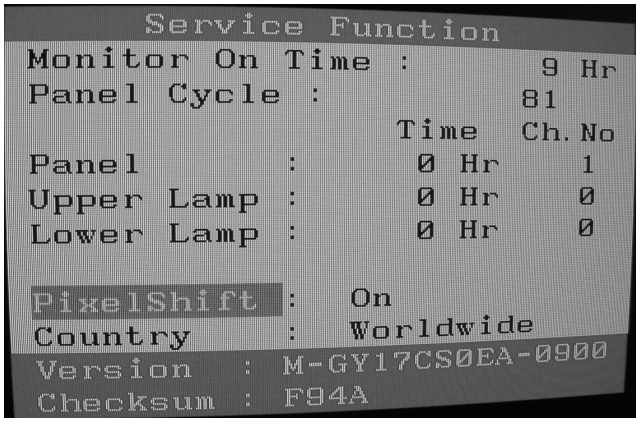
Service Function
Monitor On Time : 9 Hr
Panel Cycle : 81
Time Ch. No
Panel : 0 Hr 1
Upper Lamp : 0 Hr 0
Lower Lamp : 0 Hr 0
PixelShift : On
Country : Worldwide
Version : M-GY17CS0EA-0900
Checksum : F94A

Figure 9.

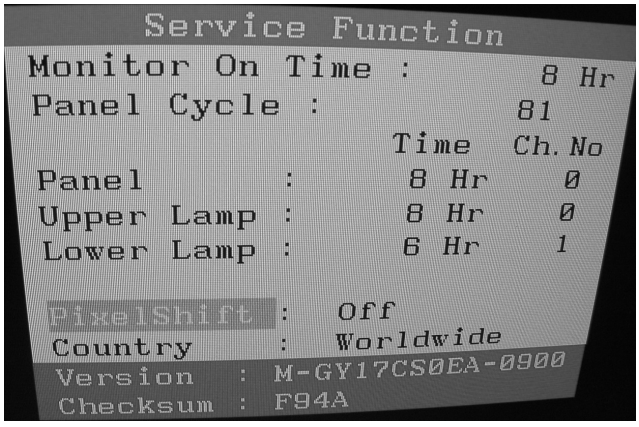
Service Function
Monitor On Time : 8 Hr
Panel Cycle : 81
Time Ch. No
Panel : 8 Hr 0
Upper Lamp : 8 Hr 0
Lower Lamp : 6 Hr 1
PixelShift : Off
Country : Worldwide
Version : M-GY17CS0EA-0900
Checksum : F94A

Figure 9-1.

Memo